

## ABSTRACT

Growth differentiation factor-5 (GDF-5) is disclosed along with its polynucleotide sequence and amino acid sequence. Also disclosed are diagnostic and therapeutic methods of using the GDF-5 polypeptide and polynucleotide sequences.

Figure 1 shows a schematic representation of a 1200-bp DNA fragment. The fragment is divided into 12 regions, numbered 1 through 12. Regions 1-11 are numbered 1 to 11. Region 12 is labeled '1200 bp'.